SEQUENCE LISTING

<110> Iwen, Peter C.
Hinrichs, Steven H.
Henry, Travis
Board of Regents of the University of Nebraska

<120> Materials and Methods for Molecular
Detection of Clinically Relevant Pathogenic Fungal Species

<130> UNMC 63149

<140> 09/580,797
<141> 2000-05-30

<160> 39

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ttgagcgtcg tttccatctt gcgcgtgcgc agagttgggg gagcggagcg gacgacgtgt 360
aaagagcgtc ggagctgcga ctcgcctgaa agggagcgaa gctggccgag cgaactagac 420
ttttttcag ggacgcttgg cggccgagag cgagtgttgc gagacaacaa aaagctcgac 480
ctcagatcag gtaggaat 498

<210> 22
<211> 646
<212> DNA
<213> Candida albicans

<400> 22
ggaagtaaaa gtcgtaacaa ggtttctgta ggtgaacctg cagaaggatc attagtgaaa 60
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aacctgcgga aggatcatta ctgatttgct taattgcacc acatgtgttt ttctttgaaa 180
caaacttgct ttggcggtgg gcccagcctg ccgccagagg tctaaactta caaccaattt 240
tttatcaact tgtcacacca gattattact aatagtcaaa actttcaaca acggatctct 300
tggttctcgc atcgatgaag aacgcagcga aatgcgatac gtaatatgaa ttgcagatat 360
tcgtgaatca tcgaatcttt gaacgcacat tgcgccctct ggtattccgg agggcatgcc 420
tgtttgagcg tcgtttctcc ctcaaaccgc tgggtttggt gttgagcaat acgacttggg 480
tttgcttgaa agacggtagt ggtaaggcgg gatcgctttg acaatggctt aggtctaacc 540
aaaaacattg cttgcggcgg taacgtccac cacgtatatc ttcaaacttt gacctcaaat 600
caggtaggac tacccgctga acttaagcat atcaataagc ggagga 646

<210> 23
<211> 323
<212> DNA
<213> Candida Lusitaniae

<400> 23
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attgcgatac gtagtatgac ttgcagacgt gaatcatcga atctttgaac gcacattgcg 180
cctcgaggca ttcctcgagg catgcctgtt tgagcgtcgc atcccctcta acccccggtt 240
aggcgttgct ccgaaatatc aaccgcgctg tcaaacacgt ttacagcacg acatttcgcc 300
ctcaaatcag gtaggactac ccg 323

<210> 24
<211> 559
<212> DNA
<213> Candida glabrata

<400> 24
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cttggttctc gcatcgatga agaacgcagc gaaatgccga tacgtaatgt gaattgcaga 480
attccgtgaa tcatcgaatc tttgaacgca cattgcgccc tctggtattc cgggggggcat 540
gcctgtttga gcgtcattt 559

<210> 25
<211> 520
<212> DNA
<213> Penicillium spp.

<220>
<221> misc_feature
<222> (0)...(0)
<223> n = a or c or g or t

<400> 25
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ccgccgggggg gcttacgccc ccgggcccgc gcccgccgaa gacaccctcg aactctgtct 120
gaagattgta gtctgagtga aaatataaat tatttaaaac tttcaacaac ggatctcttg 180
gttccggcat cgatgaagaa cgcagcgaaa tgcgatacgt aatgtgaatt gcaaattcag 240
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ccgagcgtca ttgctgccct caagcacggc ttgtgtgttg ggcccccgtc ctcccgatcc 360
cgggggacgg cccccgaaaa ggcagcggcg gcaccgcctt cccggtcctc cgagccttat 420
ggggctttgt tcaccccgct cttgttaggc cccggcccgc ctgcccccga tcaacccaaa 480
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<210> 26
<211> 654
<212> DNA
<213> Malbranchia spp.

<400> 26
ggaagtaaaa gtcgtaacaa ggtttctgta ggtgaacctg cagaaggatc attagtgaaa 60
gcaagggcca gccatacgga cggcgctact cgcgtacaac gtctctggcg tccgtaggtg 120
aacctgcgga aggatcatta aagtgttaag ccggcgcctc cgtgtgccgg tgaaactcca 180

ccctttgacta ctataccaca tgttgctttg gcgggcccgc ctccgggccg ccgggggccc 240
tgcccctggc ccgcgcccgc cagagataca ctgaaccctt tgtgaaattg gacgtctgag 300
ttgatgatca atcattaaaa ctttcaacaa tggatctctt ggttccggca tcgatgaaga 360
acgcagcgaa atgcgataag taatgtgaat tgcagaattc cgtgaatcat cgaatctttg 420
aacgcacatt gcgcccccctg gtattccggg gggcatgcct gtccgagcgt cattgcaacc 480
ctcaagcgcg gcttgtgtgt tgggcctcgt cccccgtgga cgtgcccgaa aggcagtggc 540
ggcgtccgtt tcggtgcccg agcgtatggg aactcttata ccgctcgaag ggcccggcgg 600
cgctggtcag aaccaaatct tttaccggtt gacctcggat caggtaggga tacc 654

<210> 27
<211> 719
<212> DNA
<213> Arthrogrothilus spp.

<220>
<221> misc_feature
<222> (0)...(0)
<223> n = a or c or g or t

<400> 27
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tggttgtagc tggctcctcg gagcattgtg cacgcccgcc atttttatct atccacctgt 180
gcaccgactg taggtctgga tgactctcgt gctctctgag tgcggatgcg aggattgccc 240
tcttgaggtg tctctcctcg aatttccagg ctctacgtct ttttacacac cccacaagta 300
tgatatagaa tgtagtcaat gggcttgatc gcctataaaa cactatacaa ctttcagcaa 360
cggatctctt ggctctcgca tcgatgaaga acgcagcgaa atgcgataag taatgtgaat 420
tgcagaattc agtgaatcat cgaatctttg aacgcacctt gcgctccttg gtattccgag 480
gagcatgcct gtttgagttg tcattaaatt ctcaacctca ccccgttttc ccgaacggtt 540
ctccgaggct tggatgtggg tttttgtgcc aggcttgcct ccagccgcgg tcttgtcccc 600
ttgaaattgc atttagcgag ttcgtacttg agctccgtct atggtngtga taaattatct 660
acgcccgttg gacngtttta aaactccctt ctaaccgtcc cgcaangana atanctttt 719

<210> 28
<211> 672
<212> DNA
<213> Cylindrocarpon destructans

<400> 28
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aacctgcgga aggatcatta cagtgccgcc gggacgcgcc ccctaaaccg gggcgccgag 180
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cagcccgcca gaggacccaa acccttgatt ttatacagta tcttctgagt aaatgattaa 300
ataaatcaaa actttcaaca acggatctct tggttctggc atcgatgaag aacgcagcga 360
aatgcgataa gtaatgtgaa ttgcagaatt cagtgaatca tcgaatcttt gaacgcacat 420
tgcgcccgcc agtattctgg cgggcatgcc tgttcgagcg tcatttcaac cctcaagccc 480
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gcggtctcgc tgtagcttcc tctgcgtagt agcacacctc gcactggaaa acagcgtggc 600
cacgccgtta aacccccccac ttctgaaagg ttctattctt cttaggttga cctcggatca 660
ggtagggata cc 672

<210> 29
<211> 727
<212> DNA
<213> Sporothrix schenkii

<220>
<221> misc_feature
<222> (0)...(0)
<223> n = a or c or g or t

<400> 29
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ggtctccgtt ggtgaaccag cggagggatc attacagagt tttcacaact cccaaccctt 180
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acacggcccc ctcttgcccc cgcccgccag gggcggcggg ccctacgaac ctttgtatct 300
caaccactag aaaaccgtct gaggaaaaaa caaaataatc aaaactttca acaacggatc 360
tcttggctct ggcatcgatg aagaacgcag cgaaatgcga tacgtaatgt gaattgcaga 420
attcagcgaa ccatcgaatc tttgaacgca cattgcgccc gccagcattc tggcgggcat 480
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ctccgcctgg cgggggggcc ccgaaancga gtggcgggcc ctgtggaagg ctccgagcgc 600
agtaccgaac gcatgttctc ccctcgctcc ggacgccccc caggcgccct gccgtgaaaa 660
cgcgcatgac gcgcagctct ttttacaagg ttgacctcgc cgctgacctc ggatcagtag 720
ggaatac 727

<210> 30
<211> 700
<212> DNA
<213> Penicillium marnefeii

<400> 30
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aacctgcgga aggatcatta ccgagtgagg gccctctggg tccaacctcc cacccgtgtc 180
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gtctttgaac gcacattgcg ccccctggta ttccgggggg catgcctgtc cgagcgtcat 480
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tgtaggcccg gccggcgcca gccgacaccc aactttattt ttctaaggtt gaccttggat 660
caggtaggga tacccgctgc ctcggatcag gtaggaatac 700

<210> 31
<211> 714
<212> DNA
<213> Coccidiodes immitis

<400> 31
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cgtccggctg cgcacctccc ccgcgggggt tcgcgcggtc cgtacctccc acccgtgttt 180
actgaaccat tgttgccttg gcaggcctgc cgggcctccg gctgccgggg atcgcccgcc 240
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cggcatcgat gaagaacgca gcgaaatgcg ataagtaatg tgaattgcag aattccgtga 420
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ggacgggcct gaaatgcagt ggcggcaccg agttcctggt gtctgagtgt atgggaaatc 600
acttcatcgc tcaaagaccc gatcggggcc gatctctttt ttttattata tccggtttga 660

cctcggatca ggtaggagta cccgctgaac ttacctcgga tcaggtagga atac 714

<210> 32
<211> 497
<212> DNA
<213> Candida tropicalis

<220>
<221> misc_feature
<222> (0)...(0)
<223> n = a or c or g or t

<400> 32
ggaagtaaaa agtcgtaaca aggtttccga ggngaacctg cggaaggatc nttactgatt 60
tgcttaantg ccccncatgn gtttttttatt naacaaattt ntttggnggc gggancaatc 120
cnaccnccan aggttanaac taaaccnaac ttttttnttta cagtcnaact tnatttatta 180
ttacnanagt caaaactttc aacaacggat ntnttggntn tngcatcnat gaanaacnca 240
ncnaaatncn atacgtaata tnaattgcan anattngtna atcatcgaat ctttnaacgc 300
ccnntgcncc ctttggtatt ccaaanggca ngcctgtttn ancgtcattt ntcccncnaa 360
cccccgggnt tggtgttnaa cnanacccna ggtttgtttg aaaaaattta acgtggaaac 420
ttattttaaa cgacttaggt ttatccnaaa acgcttattt tgctagggcc accacaattt 480
atttcaaact tgaccca 497

<210> 33
<211> 496
<212> DNA
<213> Candida parapsilosis

<220>
<221> misc_feature
<222> (0)...(0)
<223> n = a or c or g or t

<400> 33
ggaagtaaaa agtcggtaac aaggtttccg taggtgaacc tgcggaagga tcattacaga 60
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gctttggtag gccttctata tggggcctgc cagagattaa actcaaccaa attttattta 180
atgtcanccg attatttaat agtcaaaact ttcaacaacg gatctcttgg ttctcgcatc 240
gatgaagaac gcagcgaaat gcgataagta atatgaattg cagatattcg tgaatcatcg 300
aatctttgaa cgcncattgc gccctttggt attccaaagg gcatgcctgt ttgagcgtca 360
tttctcccnc aaaccctcgg gtttggtgtt gagcgatacg ctgggtttgc ttgaaagaaa 420
ggcggagtat aaactaatgg ataggttttt tccactcatt ggtacaaact ccaaaacttc 480
ttccaaattc gaccca 496

<210> 34
<211> 595
<212> DNA
<213> Aspergillus flavus

<400> 34
tccgtaggtg aacctgcgga aggatcatta ccgagtgtag ggttcctagc gagcccaacc 60
tcccacccgt gtttactgta ccttagttgc ttcggcgggc ccgccattca tggccgccgg 120
gggctctcag ccccgggccc gcgcccgccg gagacaccac gaactctgtc tgatctagtg 180
aagtctgagt tgattgtatc gcaatcagtt aaaactttca acaatggatc tcttggttcc 240
ggcatcgatg aagaacgcag cgaaatgcga taactagtgt gaattgcaga attccgtgaa 300
tcatcgagtc tttgaacgca cattgcgccc cctggtattc cgggggcat gcctgtccga 360
gcgtcattgc tgcccatcaa gcacggcttg tgtgttgggt cgtcgtcccc tctccggggg 420
ggacgggccc caaaggcagc ggcggcaccg cgtccgatcc tcgagcgtat ggggctttgt 480
cacccgctct gtaggcccgg ccggcgcttg ccgaacgcaa atcaatcttt ttccaggttg 540
acctcggatc aggtagggat acccgctgaa cttaagcata tcaataagcg gagga 595

<210> 35
<211> 597
<212> DNA
<213> Aspergillus fumigatus

<400> 35
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cacccgtgtc tatcgtacct tgttgcttcg gcgggcccgc cgtttcgacg gccgccgggg 120
aggccttgcg cccccgggcc cgcgcccgcc gaagacccca acatgaacgc tgttctgaaa 180
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gaatcatcga gtctttgaac gcacattgcg ccccctggta ttccgggggg catgcctgtc 360
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ggggacgggc ccgaaaggca gcggcggcac cgcgtccggt cctcgagcgt atggggcttt 480
gtcacctgct ctgtaggccc ggccggcgcc agccgacacc caactttatt tttctaaggt 540
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<210> 36
<211> 565
<212> DNA
<213> Aspergillus nidulans

<400> 36
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cggggaccac tgaacttcat gcctgagagt gatgcagtct gagcctgaat acaaatcagt 180
caaaactttc aacaatggat ctcttggttc cggcatcgat gaagaacgca gcgaactgcg 240
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cggtcctcga gcgtatgggg ctttgtcacc cgctcgatta gggccggccg ggcgccagcc 480
ggcgtctcca accttatttt tctcaggttg acctcggatc aggtagggat acccgctgaa 540
cttaagcata tcaataagcg gagga 565

<210> 37
<211> 599
<212> DNA
<213> Aspergillus niger

<400> 37
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catccgtgtc tattgtaccc tgttgcttcg gcgggcccgc cgcttgtcgg ccgccggggg 120
ggcgcctctg ccccccgggc ccgtgcccgc cggagacccc aacacgaaca ctgtctgaaa 180
gcgtgcagtc tgagttgatt gaatgcaatc agttaaaact ttcaacaatg gatctcttgg 240
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tgtcacatgc tctgtaggat tggccggcgc ctgccgacgt tttccaacca ttctttccag 540
gttgacctcg gatcaggtag ggatacccgc tgaacttaag catatcaata agcggagga 599

<210> 38
<211> 608
<212> DNA
<213> Aspergillus terreus

<400> 38
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cacccgtgac tattgtacct tgttgcttcg gcgggcccgc cagcgttgct ggccgccggg 120
gggcgactcg cccccgggcc cgtgcccgcc ggagacccca acatgaaccc tgttctgaaa 180

gcttgcagtc tgagtgtgat tctttgcaat cagttaaaac tttcaacaat ggatctcttg 240
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tccgagcgtc attgctgccc tcaagcccgg cttgtgtgtt gggccctcgt cccccggctc 420
ccgggggacg ggcccgaaag gcagcggcgg caccgcgtcc ggtcctcgag cgtatggggc 480
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gcggagga 608

<210> 39
<211> 569
<212> DNA
<213> Aspergillus ustus

<400> 39
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